REMARKS

Applicants respectfully request reconsideration and reexamination of the present application in light of the following remarks.

1. Status of the Claims

The status of the claims is as follows:

Claims canceled: None

Claims pending: Claims 1-40

Claims allowed: None

Claims rejected: Claims 1-12

Claims withdrawn: Claims 13-40

2. Election and Rejoinder

Claims 13-40 are presently withdrawn, pursuant to a restriction requirement. Upon an indication that claim 1 is allowable, Applicants request rejoinder and examination of claims 13-40, as directed to a method of using an allowable product, pursuant to MPEP § 706.02(n).

3. Acknowledgement of Information Disclosure Statement

Applicants note with appreciation the acknowledgement of the Information Disclosure Statement filed April 18, 2008.

4. Rejection under 35 U.S.C. § 112, Second Paragraph

Claims 2 and 7 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. The Office alleges—without supporting reasoning or evidence—that "substantially free" renders the claims indefinite and vague. The Office is silent in response to Applicants' arguments made in the response filed March 28, 2008.

Applicants traverse the rejection. The Office applies the broadest reasonable meaning to claim terms, applying the meaning the terms have in ordinary usage as they would be understood by one of ordinary skill in the art, and taking into account definitions

or other enlightenment in the specification. *See In re Morris*, 44 U.S.P.Q.2d 1023, 1027 (Fed. Cir. 1997). In the present case, the specification explicitly defines "substantially free" at p. 17, lines 9-13. The Office fails to take this definition into account, contrary to precedential, controlling case law. *See, e.g.*, *Morris*, 44 U.S.P.Q.2d at 1027. Accordingly, the rejection is improper and should be withdrawn.

5. Rejection under 35 U.S.C. § 102(b)

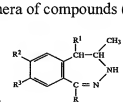
Grounds for Rejection

Claims 1 and 12 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 4,423,044 ("Kórósi"). The Office alleges that Kórósi does not specifically teach the claimed compound but discloses a genus of compounds according to formula (I) that encompasses the claimed compound (Office Action, para. bridging pp. 3-4):

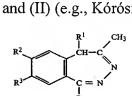
> Korosi et al. discloses a pharmaceutical composition containing an active ingredient a 3,4-dihydro-5H-2,3-benzodiazepine derivatives of the formula (I) and pharmaceutically acceptable acid addition salts thereof, wherein R represents a phenyl group optionally carrying one or two substituents selected from the group consisting of halogen, hydroxy, C1-4 alkoxy and benzyloxy; a furyl or a thienyl group. R1 stands for a hydrogen atom or a C1-4 alkyl group, R2 and R3 each represent hydrogen atom, C1-4 alkoxy, C4-7 cycloalkoxy or benzyloxy group together with a conventional inert, nontoxic, solid or liquid carrier and/or additive. Hence, the compound of formula I wherein the R represents a phenyl group carrying two substituents selected from a hydroxyl, a C1 alkoxy, R1 stands for a C2 alkyl group, R2 and R3 represents two C1 alkoxy groups (Kórósi, col. 9, claim 1; col. 10, claim 9).

Facts

F.1 Kórósi teaches the genera of compounds (I) and (II) (e.g., Kórósi, col. 1, ll. 26-46; col. 2, ll. 16-31, respectively):



(I)



(II), where:

R is a phenyl group optionally carrying one or two substituents selected from the group consisting of halogen, hydroxy, C_{1-4} alkoxy and benzyloxy; a furyl group; or a thienyl group;

R^1 is a hydrogen atom or a C_{1-4} alkyl group;

R^2 is a hydrogen atom, C_{1-4} alkoxy, cycloalkoxy or benzyloxy group; and

R^3 is a hydrogen atom, C_{1-4} alkoxy, cycloalkoxy or benzyloxy group.

F.2 A "halogen atom" encompasses four halogen atoms, preferably chlorine (e.g., Kórósi, col. 1, ll. 48-50).

F.3 A "C_{1-4} alkoxy" refers to straight-chained or branched alkoxy groups containing 1 to 4 carbon atom(s) (e.g., methoxy, ethoxy, n-propoxy, isopropoxy) (e.g., Kórósi, col. 1, ll. 50-53).

F.4 A "C_{1-4} alkyl" refers to straight-chained and branched saturated aliphatic hydrocarbyl groups containing 1 to 4 carbon atom(s) (e.g., methyl, ethyl, n-propyl, isopropyl) (e.g., Kórósi, col. 1, ll. 53-56).

F.5 A "C_{4-7} cycloalkoxy group" includes cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, and cyclohexyloxy groups (e.g., Kórósi, col. 1, ll. 57-59).

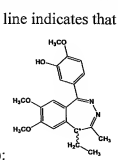
F.6 R^1 represents preferably a hydrogen atom, a methyl or an ethyl group (e.g., Kórósi, col. 1, ll. 60-61).

F.7 R^2 and R^3 are preferably C_{1-4} alkoxy groups, particularly methoxy groups (e.g., Kórósi, col. 1, ll. 61-63).

F.8 Kórósi teaches 3,4-dimethoxyphenyl (i.e., R^2 and R^3), 5-ethyl (i.e., R^1) compounds (e.g., Kórósi, Examples 1, 2, 4, 5, 6, and 9).

F.9 Kórósi teaches that R preferably is a phenyl group carrying one or two halogen and/or C_{1-4} alkoxy substituent(s), and it represents particularly a 3-chlorophenyl or 3,4-dimethoxyphenyl group (e.g., Kórósi, col. 1, ll. 65-68).

F.10 The present compound of formula (I) has the following structure, where C* is a chiral carbon and the wavy line indicates that the chirality may be (*R*) or (*S*) (e.g., Specification, p. 14, ll. 3-6):



I

F.11 Starting from the genus disclosed in Kórósi, the artisan would have to select methoxy groups as R^2 and R^3.

F.12 Starting from the genus disclosed in Kórósi, the artisan would have to select an ethyl group as R^1.

F.13 Starting from the genus disclosed in Kórósi, the artisan would have to select a phenyl group with hydroxyl and methoxy (i.e., C_1 alkoxy) substituents as R.

F.14 Kórósi does not provide an example of a compound according to the present formula (I) (Kórósi, Examples 1-21).

F.15 Kórósi does not state a preference that R should be a phenyl group with hydroxyl and methoxy (i.e., C_1 alkoxy) substituents as R (e.g., Kórósi, col. 1, ll. 65-68).

Argument

The Office alleges that Kórósi anticipates the claims because it discloses a genus that encompasses the 3,4-dihydro-5H-2,3-benzodiazepine derivatives of a formula I. In response to Applicants' arguments in the response filed March 28, 2008, the Office specifically alleges that Kórósi teaches an "identical core structure and substituents that are so small in number that one could envisage the claimed species." Office Action, p. 7, ¶ 2.

The rejection appears generally based on reasoning similar to *In re Petering*, 133 U.S.P.Q. 275, 279-80 (C.C.P.A. 1962). The C.C.P.A. in *Petering* reversed a rejection for anticipation based on a disclosed genus containing a vast number of species, but affirmed a rejection anticipation based on a disclosed ***specific preference*** for 20 compounds within the generic formula, the members of which were very similar to one another in structure and possessed the same properties. The Office's reviewing courts have since distinguished the holding in *Petering*. The C.C.P.A., for example, declined to follow *Petering*, where the art taught a genus with 130 or more structurally disparate substituents for an R group. *See In re Ruschig*, 145 U.S.P.Q. 274, 282 (C.C.P.A. 1965); *see also Sanofi-Synthelabo v. Apotex Inc.*, No. 2007-1438, slip. op. at 11-13 (Fed. Cir., Dec. 12, 2008) (contrasting *Ruschig* and *Petering*).

In the present case, Kórósi teaches a genus containing a vast number of compounds that includes the presently claimed compound of formula (I). F.1. By itself, this disclosure is not enough to anticipate the claims. *See Petering*, 133 U.S.P.Q. at 279. R^1 in Kórósi

represents preferably a hydrogen atom, a methyl or an ethyl group, and R^2 and R^3 are preferably C_{1-4} alkoxy groups, particularly methoxy groups. F.6 and F.7, respectively. Indeed, Kórósi teaches 3,4-dimethoxyphenyl (i.e., R^2 and R^3), 5-ethyl (i.e., R^1) compounds. F.8. Kórósi, however, teaches that the R group can contain structurally dissimilar phenyl, furyl, or thienyl groups. F.1. Even when R is a phenyl group, it can be substituted in one of four ways (i.e., no substitutions, substituted on the 7 or 8 carbon, or substituted on both the 7 and 8 carbons). F.1. The possible substituents on the phenyl group encompass over a dozen structurally diverse groups (e.g., at least 4 halogens, a hydroxyl group, at least 7 different C_{1-4} alkyl groups, or a benzyloxy group). F.1. The double-substituted phenyl group alone encompasses over 150 possible species (i.e., the number of possible species in one substituent multiplied by the number of possible species for the other substituent).

Unlike *Petering*, Kórósi does not disclose a specific preference for a small group of compounds containing the claimed compound. *See,* F.15. To the contrary, Kórósi discloses a specific preference for compounds having a ***distinct*** R group from the claimed compounds. F.9. Unlike *Petering*, Kórósi discloses substituents for the R group that are structurally diverse. F.1. Unlike *Petering*, Kórósi discloses a vast number of structurally diverse compounds that could fall within the R group, and over 150 compounds falling within even double-substituted phenyl groups with this R group. Clearly, the circumstances in this case are much closer to those in *Ruschig*, where no anticipation was found. It is only with impermissible hindsight and the benefit of Applicants' disclosure that one would be led to a pharmaceutical composition comprising 1-(3-hydroxy-4-methoxyphenyl)-4-methyl-5-ethyl-7,8-dimethoxy-5H-2,3-benzodiazepine. *See Ruschig*, 145 U.S.P.Q. at 282 (prohibiting anticipation by hindsight reconstruction). For at least the reasons above, Kórósi does not anticipate the claims, and the rejection accordingly should be withdrawn.

This conclusion applies perforce to the dependent claims. *See Sanofi*, No. 2007-1438, slip. op. at 11-13 (holding that a prior art teaching a racemic compound did not anticipate a claimed enantiomer).

5. Rejection of the Claims Under 35 U.S.C. § 103(a)

Claims 2-11 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over Kórósi as applied to claims 1 and 12 above. The Office by implication alleges Kórósi generically discloses a racemic compound of the formula (I). *See* Office Action, p. 4. The Office further implicitly assumes—without evidence, reasoning, or controlling authority—that this disclosure by itself establishes *prima facie* obviousness. The Office then alleges that the isolation of an *R* or *S* isomer would have been obvious in view of Kórósi's generic disclosure. Office Action, p. 4, ¶ 6.

The Office has not made a case of *prima facie* obviousness with respect to claim 1 or 12. As set forth above, Kórósi discloses a vast genus of compounds that encompasses the presently compound of formula (I). The Federal Circuit long ago declined "to extract [a] rule . . . that regardless of how broad, a disclosure of a chemical genus renders obvious any species that happens to fall within it." *In re Jones*, 21 U.S.P.Q.2d 1941, 1943 (Fed. Cir. 1992) (emphasis added). More is needed to establish *prima facie* obviousness in this art, namely, there must be a showing that the prior art would have suggested or motivated making or selecting the claimed compound. *See, e.g.*, *Takeda Chem. Indus. Ltd. v. Alphapharm Pty. Ltd.*, 83 U.S.P.Q.2d 1169, 1174 (Fed. Cir. 2007) (citing cases); *accord Sanofi*, No. 2007-1438, slip. op. at 11-13. Far from suggesting the claimed compound, Kórósi suggests a specific preference for structurally distinct subgenera of compounds, particularly one in which R is a 3-chlorophenyl or 3,4-dimethoxyphenyl group. *See* F.9. The Office fails to provide the necessary showing, let alone evidence sufficient to counter these teachings of Kórósi, so the rejection must be withdrawn. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness").

Because the Office has not made a *prima facie* case of obviousness against claims 1 and 12, whether an *R* or *S* isomer would have been obvious in view of Kórósi's generic disclosure is wholly irrelevant, because the claims 2-11 incorporate all the limitations of

claims 1 and 12. The rejection is based on legally irrelevant grounds. The rejection thus is improper and must be withdrawn.

6. Rejections for Obviousness-Type Double Patenting

Claims 1-6 stand rejected on the ground of nonstatutory obviousness-type double patenting as allegedly unpatentable over claim 5 of U.S. Patent No. 6,864,251 B2.

Applicants concurrently file a Terminal Disclaimer pursuant to 35 U.S.C. § 154, along with the associated fee. The Terminal Disclaimer disclaims the terminal part of the statutory term of any patent granted on the present application that would extend beyond the expiration date of U.S. Patent No. 6,864,251 B2. The Terminal Disclaimer also avers that any patent granted on the present application shall be enforceable as long as the patents at issue are commonly owned. The rejection accordingly may be withdrawn.

Claims 1-6 further stand rejected on the ground of provisional nonstatutory obviousness-type double patenting as allegedly unpatentable over claim 13 of U.S. Application No. 10/727,940. The '940 application was abandoned April 16, 2008, mooting the rejection.

CONCLUSION

In view of the above arguments and amendments to the claims, Applicants respectfully assert that the claims are condition for allowance and respectfully request a Notice of Allowance.

Should any issues remain outstanding or if there are any questions concerning this paper, or the application in general, the Examiner is invited to telephone the undersigned representative at the Examiner's earliest convenience. Should any outstanding fees be owed or overpayments credited, including for Notice of Appeal, the Commissioner is invited to charge or credit Deposit Account No. 50-0573 accordingly. The Office is authorized to use this paper as a Notice of Appeal and charge the necessary fee, if needed to maintain pedency.

Respectfully submitted

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